

The MRAP: A Bad Rap for the Marine Corps  
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to  
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## **Introduction**

Late each weekday afternoon, the Pentagon issues a list of all the contracts it has awarded that day.<sup>1</sup> One Thursday (18 October 2007), at the bottom of that list were four contracts to four different companies for more than \$1 billion to buy mine-resistant ambush protected (MRAP) vehicles for Marines in Iraq. On this Thursday, the Marine Corps bought 2,153 MRAPs for delivery by April 2008.<sup>2</sup> While this MRAP purchase may be currently seen in a positive political light, the intended and unintended consequences to the military, specifically the Marine Corps, may be long lasting. The Marine Corps should discontinue the procurement of the MRAP because it is unsuitable for counterinsurgency operations, it is not consistent with the Corps' expeditionary mindset, and the vehicle is too expensive.

## **Background/Procurement**

All land forces in Iraq are well aware that the current weapon of choice for insurgent forces is the improvised explosive device (IED). To counter the IED threat, the Department of Defense (DoD) has attempted several initiatives from technology to jam IED triggering signals to improving armor protection. The latter attempt has taken DoD acquisitions down the path of the mine resistant ambush protected vehicle.

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<sup>1</sup> Defense Link News: *Contracts*, 18 October 2007, URL: <<http://www.defenselink.mil/Contracts/index.aspx>>, accessed on 26 October 2007.

<sup>2</sup> Mark Thompson, "Doubts About a New Armored Vehicle," *TIME Magazine*, 22 October 2007, URL: <<http://www.time.com/time/nation/article/0,8599,1674270,00.html>>, accessed on 26 October 2007.

Along with displaying some of today's top armor, the MRAP also has a V-shaped hull along a raised chassis to protect warfighters from IED attacks, small arms fire, and mines. According to Captain Garrett Hager, the Program Manager for USMC Operator-Driving Simulators, the MRAP currently comes in three categories. Category I vehicles can carry six Marines and are used in a role similar to that of the high mobility multi-purpose wheeled vehicle (HMMWV). Category II MRAPs, which can carry ten passengers, cover a range of missions including troop transport and ambulance services. Category III vehicles, which also carry six passengers, are used to perform IED and mine sweeping missions, as well as explosive ordnance disposal operations.<sup>3</sup>

As of October 2007, the DoD had ordered a total of 6,415 vehicles. The department estimates about 3,500 MRAPs should be delivered to forces in Iraq by December.<sup>4</sup> The Marine Corps currently has an estimated 380 MRAP vehicles in Iraq.<sup>5</sup>

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<sup>3</sup> Email from Captain Garrett Hager, Program Manager USMC Operator Driving Simulators, 18 October 2007.

<sup>4</sup> Michael Burnett, "Wrapping up the MRAP," *Military Logistics Forum*, Volume 1, Issue 3, 5 October 2007, URL: <<http://www.military-logistics-forum.com/article.cfm?DocID=2203>> accessed 20 October 2007.

<sup>5</sup> Christian Lowe, "Marines Urge Caution on MRAP Fielding," *Military.Com*, 19 October 2007, URL: <<http://www.military.com/NewsContent/0,13319,153219,00.html>> accessed 20 Oct 2007.

## COIN Suitability

*Sometimes, the more you protect your force, the less secure you may be. Ultimate success in a counterinsurgency is gained by protecting the populace, not the counterinsurgent force.*<sup>6</sup>

--FM 3-24 Counterinsurgency

According to Dr. David Kilcullen, Chief Strategist of Counterinsurgency Operations at the State Department, "counterinsurgency operations are fundamentally perception management operations."<sup>7</sup> Virtually every action, message and decision by an occupying force shapes the opinions of the indigenous population. With this basic understanding of counterinsurgency (COIN) operations, the question should be raised, "How does the MRAP affect the image of U. S. Forces and its ability to conduct COIN operations?"

First, consider the size of the vehicle. The MRAP is massive when compared with the HMMWV. The MRAP is over ten-feet tall, up to twenty-four-feet long, and can be up to nine-feet wide.<sup>8</sup> A typical up-armored HMMWV is approximately only six feet tall.<sup>9</sup> (For a visual comparison between the HMMWV and the MRAP consider the size difference between a Nissan X-Terra and a garbage truck.) When it comes to moving through an urban area,

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<sup>6</sup> Department of the Army, FM 3-24, Counterinsurgency, December 2006.

<sup>7</sup> Dr. David Kilcullen, Chief Strategist of Counterinsurgency Operations, State Department, Power Point Presentation, "Counterinsurgency in Iraq: Theory and Practice 2007," *The United States Government Interagency COIN Initiative*, URL: <<http://www.usgcoin.org/>> accessed on 27 Oct 07.

<sup>8</sup> Author's Note - Due to the numerous MRAP manufactures, there are many makes and models of the vehicle, however approximate dimensions can be calculated. Above mentioned dimensions were taken from multiple on-line sources.

<sup>9</sup> HMMWV data based on author's experience as a Motor Transport Officer.

the impact that this drastic difference in size has on the local population must not be underestimated. As Dr. Kilcullen states,

The difference in perspective matters. No civilian population likes being occupied. Therefore, every operation has a price because, inevitably, the occupiers will annoy, inconvenience, or actually humiliate the population.<sup>10</sup>

The MRAP portrays a menacing, aggressive posture that can potentially undermine efforts to establish relationships with the local populace. They need to see the Marines "as real people they can trust and do business with, rather than as aliens who descended from armored boxes."<sup>11</sup>

The MRAP has the potential not only to have a negative effect on the local population, but also on the U.S. forces employing the vehicle, by placing force protection ahead of mission accomplishment. First, it must be stated that throughout all ranges of military operations, the commander will be confronted with the dual responsibilities of mission accomplishment and force protection. Force protection is crucial to the creation of circumstances necessary for mission accomplishment; however, U.S. forces must share risks and maintain contact with the local populace, particularly in COIN operations.<sup>12</sup> The MRAP, with its top of the line armor protection, runs counter this principle (shared risk), so much so that Lieutenant General Raymond Odierno, Commanding General

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<sup>10</sup> David Kilcullen

<sup>11</sup> FM 3-24 pg A-4

<sup>12</sup> FM 3-24 pg 1-27

of the Multinational Corps in Baghdad, conveyed the following guidance to forces under his command:

Get out and walk - move mounted, work dismounted. Armored vehicles limit our situational awareness and insulate us from the Iraqi people we intend to secure...These vehicles offer protection, but they do so at the cost of a great deal of effectiveness...Patrol on foot to gain and maintain contact with the population and the enemy. That's the only way to dominate urban terrain.<sup>13</sup>

As mentioned throughout *FM 3-24 Counterinsurgency*, success in COIN operations lies in not pouring more troops and equipment into the area, but in winning the hearts and minds of the local population. The armor protection provided by the MRAP provides only a portion of the force protection needed to be successful. Other equally important elements of force protection, such as information operations and maintaining an offensive mindset protect those on the ground as well. As noted by the Defense Science Board in its report titled *Force Protection in Urban and Unconventional Environments*,

Technology and material are important for force protection. However, they will remain supporting actors. The human dimension is the dominant factor in war and in future stability and counterinsurgency operations.<sup>14</sup>

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<sup>13</sup> LTG USA Raymond Odierno, "Counterinsurgency Guidance," Headquarters Multi-National Corps-Iraq, Baghdad, Iraq, June 2007, URL: <<http://smallwarsjournal.com/documents/mncicoinguide.pdf>> accessed on 18 October 2007.

<sup>14</sup> Defense Science Board, "Force Protection in Urban and Unconventional Environments," March 2006, pg 5.

## **Expeditionary Mindset**

*We are an expeditionary force by our nature . . . But right now we are taking on the profile of a second land Army . . . We have to go through what I call an expeditionary filter to get back to a lighter, faster more hard hitting capability.*<sup>15</sup>

--General Conway

According to *MCDP 1-0, Marine Corps Operations*, one of the Marine Corps' core competencies is expeditionary operations.<sup>16</sup>

This core competency is driven by the Marine Corps' responsibilities under Title 10 and can be summed up as stated in the Marine Corps Strategy 21, as a duty to be the "Nation's Premier Expeditionary Total Force in Readiness."<sup>17</sup> Bottom line, this is the bedrock of the Marine Corps' expeditionary mindset. This core competency guides the Corps' most basic tactics, techniques, and procedures and should also steer its acquisitions.

To understand how the MRAP runs counter to the Marine Corps' expeditionary operations mindset, the vehicle must be compared with the elements of expeditionary operations as stated in *MCDP 1-0*.<sup>18</sup> One of these major elements is the principle of

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<sup>15</sup> Geoff Finn, "Marine Corps Needs to Be a Lighter, Faster, Force, Commandant Says," *Defense Daily*, 18 October 2007, URL: <<http://www.defensedaily.com/VIP/common/pub/dd/dd10180704.html>>, accessed on 26 October 2007.

<sup>16</sup> United States Marine Corps, *MCDP 1-0, Marine Corp Operations*. This doctrinal publication lists the five core competencies of the Marine Corps as: Warfighting Culture and Dynamic Decision Making, Expeditionary Forward Operations, Sustainable and Littoral Power Projection, Combined Arms Integration, and Forcible Entry From the Sea.

<sup>17</sup> United States Marine Corps, *Marine Corps Strategy 21*, 3 November 2000. URL: <[http://www.marines.mil/templateml.nsf/25241abbb036b230852569c4004eff0e/\\$FILE/strategy.pdf](http://www.marines.mil/templateml.nsf/25241abbb036b230852569c4004eff0e/$FILE/strategy.pdf)> accessed on 1 December 2007.

<sup>18</sup> *MCDP 1-0* lists the elements of expeditionary operations as: Expeditionary Mindset, Tailored Forces, Forward Deployment, Rapid Deployment, Expeditionary Basing, Forcible Entry, and Sustainment.



rapid deployment. This element can be summarized as responding to a crisis quickly via airlift, sealift, or movement from a forward base.<sup>19</sup>

Consequently, one must understand how the MRAP's size and weight have an adverse effect on its deployability. Unlike the typical HMMWV, which has an average weight of six tons, the MRAP can weigh anywhere from fourteen to twenty-five tons depending on its category.<sup>20</sup> This substantial disparity in size and weight between the HMMWV and the MRAP can be even further realized when considering the lift required to deploy a MRAP. Based on the MRAP's current characteristics, it can not be lifted by any Marine Corps organic asset.<sup>21</sup> The heavily armored vehicle does not fit in a C-130 and typically must be transported via C-17, C-5, or naval assets.<sup>22</sup>

Even aboard ship, the MRAP poses a problem to Marine Corps and Navy planners. As mentioned by Andrew F. Krepinevich and Dakota L. Wood in their report, *Of IEDs and MRAPs: Force Protection in Complex Irregular Operations*, instead of being concerned with the typical limitations of cube or volume of the ship, planners are for the first time "confronted with loading-weight limitations of amphibious ships and space restrictions that limit the height and width of vehicles that can be stowed

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<sup>19</sup> MCDP 1-0, pg 2-4.

<sup>20</sup> Email with Captain Garrett Hager

<sup>21</sup> Email with Captain Garrett Hager

<sup>22</sup> Email with Captain Garrett Hager

on lower vehicle decks within a ship.”<sup>23</sup> This increase in size and weight of the Corps’ expeditionary forces will no doubt have an adverse effect on its rapid deployability.

This problem has been addressed by some of the Marine Corps’ senior leadership. Lieutenant General John Castellaw, Deputy Commandant of the Marine Corps, Programs and Resources, stated before the House Armed Services Subcommittee on Seapower and Expeditionary Forces and Air and Land Forces on 19 July 2007, “The size and weight of the MRAP may precludes its use for many of the expeditionary missions of the Marine Corps where transportability must be considered.”<sup>24</sup> The combination of these factors indicates the MRAP has the potential to have a severe impact on the expeditionary mindset of the Marine Corps.

When Task Force 58 established a beachhead at Camp Rhino, Afghanistan, 658 miles inland, it redefined the concept of an amphibious beachhead and dramatically reinforced the need for a true *expeditionary* Marine Expeditionary Force. The question that should now be raised, with addition of the MRAP and its corresponding effects on the Corps expeditionary mindset, is whether the Marine Corps is actually going through the necessary

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<sup>23</sup> Andrew F. Krepinevich and Dakota L. Wood, “Of IEDs and MRAPs: Force Protection in Complex Irregular Operations,” *Center for Strategic and Budgetary Assessments*, 17 October 2007, URL: <[http://www.csbaonline.org/4Publications/PubLibrary/R.20071017.Of\\_IEDs\\_and\\_MRAPs/R.20071017.Of\\_IEDs\\_and\\_MRAPs.pdf](http://www.csbaonline.org/4Publications/PubLibrary/R.20071017.Of_IEDs_and_MRAPs/R.20071017.Of_IEDs_and_MRAPs.pdf)> accessed on 20 October 2007.

<sup>24</sup> Lieutenant General John Castellaw testimony before the Joint Seapower and Expeditionary Forces and Air and Land Forces subcommittee on 19 July 2007, URL: <[http://www.house.gov/hasc/hearing\\_information.shtml](http://www.house.gov/hasc/hearing_information.shtml)>, accessed on 20 October 2007.

*expeditionary filter* to maintain its status as the nation's 911 force in readiness. To borrow a statement from Samuel P. Huntington, "If a service does not possess a well-defined strategic concept, the public and the political leaders will be confused as to the role of the service and uncertain as to the necessity of its existence."<sup>25</sup>

### **Too Expensive**

*The current fiscal outlook makes several key points. Under any plausible scenario, the federal budget, specifically defense spending, is on an unsustainable path.*<sup>26</sup>

--Peter R. Orszag  
Director, Congressional Budget Office

No one would argue against trying to protect the brave men and women fighting in the defense of the nation; therefore, it is illogical to debate the cost of a life versus the value of the dollar. That is not the purpose or scope of this portion of the MRAP argument. Instead, the DoD and the Marine Corps must weigh not only the human cost of war, but also the financial costs.

As of current estimates, each MRAP comes with an average sticker price of \$800,000.<sup>27</sup> According to Mark Thompson of *Time Magazine*, many of the heavier MRAPs top the purchasing scale at

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<sup>25</sup> MCDP 1-0 pg 2-2

<sup>26</sup> Peter Orszag, Director, Congressional Budget Office, "Long Term Budget Outlook," *Director's Blog*, 18 December 2007, URL: <<http://cboblog.cbo.gov/?cat=9>> accessed on 30 December 2007.

<sup>27</sup> Time Magazine, Mark Thompson.

over one-million dollars.<sup>28</sup> These figures are in addition to the expensive price tag of transporting the MRAPs to Iraq. In December 2007, the *Army Times* reported that it costs approximately \$135,000 to transport one MRAP to Iraq. Based on Pentagon reports, the DOD will spend over 750 million dollars during 2007 in shipping costs alone.<sup>29</sup>

Even as the world's wealthiest nation, the U.S. cannot afford extravagant purchases like the MRAP without creating consequences for the U.S. military. As mentioned by Julian Barnes and Peter Spiegle in their *Los Angeles Times* article, "The Nation/Military Think Twice About Fortified Vehicles," with the MRAP bill coming in around the range of 17 to 25 billion dollars, "there will be a definite impact on future Pentagon acquisitions."<sup>30</sup> For the scale of simplicity, consider that the same level of investment could purchase about ten Virginia-class submarines, half of the joint light tactical vehicle (JLTV) fleet, 100 C-17 airlifters, and an entire fleet of expeditionary fighting vehicles.<sup>31</sup> According to InsideDefense.com, the MRAP has already pulled money away from other large DOD acquisitions, most noteworthy, the JLTV program which has currently been

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<sup>28</sup> Time Magazine, Mark Thompson

<sup>29</sup> Tom Vanden Brook, "Journey Long, Demand High," *Army Times*, 17 December 2007, URL: < [http://www.armytimes.com/news/2007/12/gns\\_mrap\\_071217](http://www.armytimes.com/news/2007/12/gns_mrap_071217) > accessed on 30 December 2007.  
Authors Note: These numbers are based off of air transportation alone. Transporting MRAPs by ship to Iraq costs substantially less, approximately \$18,000 per vehicle, but takes around 30 days, compared to one day via air.

<sup>30</sup> Julian Barnes and Peter Spiegle, "The Nation/Military Think Twice About Fortified Vehicles," *Los Angeles Times*, Part A, Page 1, 27 December 2007.

<sup>31</sup> Jen DiMascio, "Marine Official Emphasizes Continued Need For MRAP Vehicles," *Defense Daily*, Volume 236, Issue 14, 18 October 2007.

delayed by at least two years.<sup>32</sup> For a vehicle without a clear future, the MRAP purchases are a huge price to pay.

### **Counter Argument**

In defense of those in favor of the continued purchase of the MRAP, the vehicle has had a tremendous impact on the number of casualties inflicted by IEDs. As of summer 2007, commanders in the Anbar province reported that with more than 300 attacks on the MRAP, no Marines have died.<sup>33</sup>

Unfortunately, the enemy continues to adapt. Insurgents have responded to the success of the MRAP by increasing the size and explosive force of the IEDs and by employing sophisticated explosive-formed projectiles (EFPs) in updated IEDs that are capable of penetrating even the most heavily armored vehicles.<sup>34</sup>

In response, the Defense Department has initiated an effort to develop an "MRAP II," capable of defending against EFPs.<sup>35</sup> If past experience is any guide, one can presume that the MRAP II would likely be even more expensive, while IEDs are inexpensive, easy to assemble, plentiful, and extremely effective.

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<sup>32</sup> InsideDefense.com, "New JLTV Strategy Delayed By Two Years," *The Insider*, 28 September 2007, URL: <<http://defensenewsstand.com/insider.asp?issue=09272007>> accessed on 2 December 2007.

<sup>33</sup> Brook, Tom Vanden, "General: No Deaths in 300 Attacks on MRAPs," *USA Today*, 19 April 2007. URL: <[http://www.marinecorpstimes.com/news/2007/04/gns\\_mrap\\_070419](http://www.marinecorpstimes.com/news/2007/04/gns_mrap_070419)> accessed on 30 October 2007.

<sup>34</sup> Of IEDs pg 48

<sup>35</sup> According to a press release on Oshkosh Trucks website, the company was awarded a contract on 20 December 2007 for six MRAP II vehicles for testing in early 2008. URL: <<http://www.oshkoshtruckcorporation.com>> accessed on 3 January 2008.

## **Conclusion**

There are no easy answers for protecting U.S. forces from harm while they are conducting their nation's business, however senior military and civilian decision makers must carefully balance service needs before heading down the acquisition path. The Marine Corps should discontinue procurement of the MRAP because it is unsuitable for counterinsurgency operations, is not consistent with the Corps' expeditionary mindset, and it is too expensive. As declared by researchers at the Center for Strategic and Budgetary Assessments, "Simple solutions to complex problems are inherently attractive and almost always wrong. So it is with the Pentagon's crash production of the MRAP." <sup>36</sup>

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<sup>36</sup> Of IEDs

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